

the amino acid sequence, the affinity purification peptide is denoted with lower case bold type in the amino acid sequence, and the enterokinase cDNA is denoted with lowercase bold type in both the DNA and amino acid sequences.

a2
Sub C1
[0011] Figure 3 shows various DNA (SEQ ID NOS: 16-20) and amino acid sequence (SEQ ID NOS: 1-4, 15) embodiments of the affinity purification site of the present invention.

On page 13, please replace paragraph [0061] with the following paragraph:

a3
In some embodiments, each of X_1 and X_2 is independently selected from the group consisting of Leu, Ile, Val, Ala, Gly, Asn, and Gln. In other embodiments, each of X_1 and X_2 is independently selected from the group consisting of Leu, Val, Asn, and Ile. In some embodiments, each of X_3 , X_4 , X_5 is independently selected from the group consisting of Lys, Arg, Asp, and Glu. In some embodiments, each of X_3 , X_4 , X_5 is independently selected from the group consisting of Lys and Glu. In some embodiments, each X_6 is independently selected from the group consisting of Leu, Ile, Val, Ala, Gly, Asn, and Gln. In other embodiments, each X_6 is independently selected from the group consisting of Ala and Asn. In one particular embodiment, the affinity peptide has the amino acid sequence $\text{NH}_2\text{-His-Leu-Ile-His-Asn-Val-His-Lys-Glu-Glu-His-Ala-His-Ala-His-Asn-COOH}$ (SEQ ID NO: 1)

On page 13, please replace paragraph [0063] with the following paragraph:

Sub B37
a4
The invention further provides a metal ion affinity peptide, wherein the affinity peptide has the formula $(\text{His-X}_1\text{-X}_2)_n$, wherein each of X_1 and X_2 is an amino acid having an acidic side chain, and $n=3$ to 10. In one embodiment, the affinity peptide comprises the sequence $(\text{His-Asp-Asp})_6$ (SEQ ID NO: 2). In another embodiment, the affinity peptide comprises the sequence $(\text{His-Glu-Glu})_6$ (SEQ ID NO: 3). In a further embodiment, the affinity peptide comprises the sequence $(\text{His-Asp-Glu})_6$ (SEQ ID NO: 4). In a further embodiment, the affinity peptide comprises the sequence $(\text{His-Glu-Asp})_6$ (SEQ ID NO: 5).

On page 14, please replace paragraph [0068] with the following paragraph:

a5
Proteolytic cleavage sites are known to those skilled in the art; a wide variety are known and have been described amply in the literature, including, e.g., Handbook of Proteolytic Enzymes (1998) AJ Barrett, ND Rawlings, and JF Woessner, eds., Academic Press. Proteolytic cleavage sites include, but are not limited to, an enterokinase cleavage site: (Asp)₄Lys (SEQ ID NO: 6); a factor Xa cleavage site: Ile-Glu-Gly-Arg (SEQ ID NO: 7); a thrombin cleavage site, e.g., Leu-Val-Pro-Arg-Gly-Ser (SEQ ID NO: 8); a renin cleavage site, e.g., His-Pro-Phe-His-Leu-Val-Ile-His (SEQ ID NO: 9); a collagenase cleavage site, e.g., X-Gly-Pro (where X is any amino acid); a trypsin cleavage site, e.g., Arg-Lys; a viral protease cleavage site, such as a viral 2A or 3C protease cleavage site, including, but not limited to, a protease 2A cleavage site from a picornavirus (see, e.g., Sommergruber et al. (1994) *Virol.* 198:741-745), a Hepatitis A virus 3C cleavage site (see, e.g., Schultheiss et al. (1995) *J. Virol.* 69:1727-1733), human rhinovirus 2A protease cleavage site (see, e.g., Wang et al. (1997) *Biochem. Biophys. Res. Comm.* 235:562-566), and a picornavirus 3 protease cleavage site (see, e.g., Walker et al. (1994) *Biotechnol.* 12:601-605).

On page 15, please replace paragraph [0069] with the following paragraph:

a6
A subject fusion protein may comprise, in addition to a fusion partner polypeptide and a metal ion affinity peptide, an immunological tag. An immunological tag, if present, is present at the amino terminus, the carboxyl terminus, or disposed between the fusion partner polypeptide and the metal ion affinity peptide. Immunological tags are known in the art, and are typically a sequence of between about 6 and about 50 amino acids that comprise an epitope that is recognized by an antibody specific for the epitope. Non-limiting examples of such tags are hemagglutinin (HA; e.g., CYPYDVPDYA (SEQ ID NO: 10)), FLAG (e.g., DYKDDDDK (SEQ ID NO: 11)), c-myc (e.g., CEQKLISEEDL (SEQ ID NO: 12)), and the like.